

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Czjakowski, et al.

Title: RADIATION SHIELDING OF
THREE DIMENSIONAL MULTI-
CHIP MODULES

Appl. No.: Unknown

Filing Date: 08/18/2003

Examiner: Unknown

Art Unit: Unknown

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service's "Express Mail Post Office To Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.

EL990323029 US August 18, 2003
(Express Mail Label Number) (Date of Deposit)

Line Gauthier
(Printed Name)


(Signature)

Mail Stop PATENT APPLICATION
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

Applicants submit herewith on Form PTO/SB/08 a listing of the documents cited by or submitted to the U.S. PTO in parent application Serial No. 09/878,683; 08/221,506; 08/372,289; 08/788,134; and 09/109,954, filed 06/09/2001; 04/01/1994; 01/13/1995; 01/24/1997; and 07/02/1998, respectively. As provided in 37 CFR § 1.98(d), copies of the documents are not being provided since they were previously submitted to the United States Patent & Trademark Office in the above-identified parent application.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR § 1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any

document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the filing date of the application.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

Date: August 18, 2003

Respectfully submitted,

FOLEY & LARDNER
Customer Number: 30542



30542

PATENT TRADEMARK OFFICE

Telephone: (312) 832-4553
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By Sanjeev K. Dhand

Sanjeev K. Dhand
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For G. Peter Albert, Jr.
Attorney for Applicant
Registration No. 37,268

Attorney Docket No. 70638

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Czjakowski, et al.
Serial No.: 09/878,683
Filed: 06/9/2001
For: RADIATION SHIELDING
OF THREE DIMENSIONAL
MULTI-CHIP MODULES
Group Art
Unit: TBD
Examiner: TBD

I hereby certify that this paper is being
deposited with the United States Postal
Service as first class mail in an envelope
addressed to: Commissioner for Patents,
Washington, D.C. 20231, on this date.

11/9/01


Date Thomas F. Lebans
Registration No. 38,221
Attorney for Applicant(s)

**INFORMATION DISCLOSURE STATEMENT IN ACCORDANCE
WITH 37 C.F.R. §§1.97-1.98**

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This Information Disclosure Statement is being made
under 37 C.F.R. §1.97(b).

In accordance with the duty of disclosure imposed by
37 C.F.R. §1.56 to inform the Patent Office of all
references known by Applicant or Applicant's
representative that may be material to the examination of
the subject application, Applicant's representative
hereby provides this Information Disclosure Statement
that is prepared in accordance with 37 C.F.R.
§§1.97-1.98.

The material listed on PTO-1449 as items AA
through AU, inclusive, and items AW through DP,
inclusive, were made of record in U.S. patent application
Serial Number 09/109,954, filed July 2, 1998, for
RADIATION SHIELDING OF THREE DIMENSIONAL MULTI-CHIP

MODULES, to Czjakowski, to which this application claims priority and thus, copies of these items are not required as per C.F.R. §1.98(d).

A copy of the material listed on PTO-1449 as item AV is provided as per 37 C.F.R §1.98(a).

All twelve of the following references cited in the Form-1449 are in a foreign language. Therefore, the Applicant is supplying the following concise explanations of relevance pursuant to 37 C.F.R. § 1.98 (a).

Japanese Patent Publications No. 60-180150 appears to disclose a semiconductor device enclosed within a plastic package, and surrounded by a thin metallic plating to absorb or collect unwanted electro-magnetic interference (EMI).

Japanese Patent Publication No. 61-4249 appears to disclose a spot shielded semiconductor device which utilizes a single-layer shield film.

Japanese Patent Publication No. 4-94560 appears to disclose a semiconductor device enclosed within a plastic package and surrounded by a grounded metallic plate to absorb or reflect EMI.

Japanese Patent Publication No. 56-103452 appears to disclose a packaged semiconductor device having external leads connected to an internal semiconductor device protected from radiation by projections from a base portion.

Japanese Patent Publication No. 2-237053 appears to disclose a semiconductor device surrounded by an EMI wave absorber material in a metal package.

Japanese Patent Publication No. 62-125651 appears to disclose the use of spot shielding to protect a semiconductor device.

Japanese Patent Publication No. 60-106150 appears to disclose the use of a cap or lid to protect an integrated

circuit chip from radiation. It also appears to disclose the use of a metal shielding sheet within a package as well as outside the package.

Japanese Patent Publication No. 54-4781 appears to disclose the use of a metallic thin film on the inside of a container for containing a semiconductor device. The thin film is used to prevent radiation from making the IC malfunction.

Japanese Patent Publication No. 60-124834 appears to disclose an inspection process to detect defective chips, bonding wire or lead frame of a rejective semiconductor device.

Japanese Patent Publication No. 2-278740 appears to disclose a way of bonding and IC chip to a lead frame with sealing frame and performing resin-sealing of the IC chip in a way to reduce the bonding time.

Japanese Patent Publication No. 4-273200 appears to disclose a shielding device that is on top of a printed wiring board.

French Patent No. 258483 appears to disclose a protective component used with complex circuits in spacecraft. The protective component appears to be successive layers of materials with high and low numbers of charges that protects against ionizing radiation.

English translations have been previously provided for items DA, DB, and DF.

Although these documents are made known to the Patent and Trademark Office in compliance with Applicant's duty of disclosure, such disclosure is not to be construed as an admission by Applicant or Applicant's representative that any of the references is effective as prior art against the subject application. In accordance with 37 CFR 1.97(b), the filing of this Information Disclosure Statement shall not be construed to mean that

IDS
S.N. 09/878,683

-4-

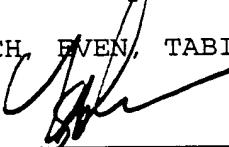
a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists.

Applicant respectfully requests that the Examiner review the foregoing references and that they be made of record in the file history of the above-captioned application.

Respectfully submitted;

FITCH, EVEN, TABIN & FLANNERY

By:


Thomas F. Lebens
Registration No. 38,221

Dated: 9-Nov, 2001

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135 So. LaSalle Street, Suite 900
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Telephone: 858/587-7644

**INFORMATION DISCLOSURE
CITATION IN AN APPLICATION**

| | |
|----------------------|---------------------------|
| Application No. | 09/878,683 |
| Filing Date | 6/9/01 |
| First Named Inventor | Czjakowski, et al. |
| Group Art Unit | TBD |
| Examiner Name | TBD |
| Sheet 1 of 5 | Attorney Docket No. 70638 |

U.S. PATENT DOCUMENTS

| EXAMINE R INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD- YYYY) | CLASS | SUB CLASS | FILING DATE (if appropriate) |
|---------------------------|----------|---|------------------------------|-------------------------------|-------------------------------------|---|-------|-----------|---------------------------------|
| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| | AA | X | 4,663,240 | | Hajdu, et al. | 5/87 | | | 4/84 |
| | AB | X | 4,979,019 | | Paquette, et al. | 12/90 | | | 5/88 |
| | AC | X | 5,561,265 | | Livshits, et al. | 10/96 | | | 10/94 |
| | AD | X | 4,652,465 | | Koto | 3/87 | | | 5/85 |
| | AE | X | 4,506,108 | | Kersch, et al. | 3/85 | | | 4/83 |
| | AF | X | 4,833,334 | | Valy, et al. | 5/89 | | | 4/87 |
| | AG | X | 4,975,762 | | Stradley, et al. | 12/90 | | | 6/81 |
| | AH | X | 5,317,107 | | Osorio | 5/94 | | | 9/92 |
| | AJ | X | 5,406,117 | | Dlugoecki, et al. | 4/95 | | | 12/93 |
| | AJ | X | 4,091,407 | | Williams, et al. | 5/78 | | | 11/76 |
| | AK | X | 5,825,042 | | Strobel, et al. | 10/98 | | | 1/95 |
| | AL | X | 5,889,316 | | Strobel, et al. | 3/99 | | | 2/96 |
| | AM | X | 5,880,403 | | Czjakowski, et al. | 3/99 | | | 1/97 |
| | AN | X | 3,828,425 | | Manus | 8/74 | | | 10/70 |
| | AO | X | 4,837,448 | | Sainte Luce Banchelin, et al. | 6/89 | | | 4/87 |
| | AP | X | 3,771,025 | | Berner | 11/73 | | | 10/69 |
| | AQ | X | 5,206,794 | | Long | 4/93 | | | 12/91 |
| | AR | X | 5,268,331 | | Abbott | 12/93 | | | 1/92 |
| | AS | X | 3,706,840 | | Moyle, et al. | 12/72 | | | 5/71 |
| | AT | X | 3,914,858 | | Sonoda, et al. | 10/75 | | | 8/74 |
| | AU | X | 4,100,675 | | Landsittel | 7/78 | | | 11/76 |

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|--|--|----------------------|--------------------|
| Form PTO-1449 (Modified) INFORMATION DISCLOSURE CITATION IN AN APPLICATION | | Application No. | 09/878,683 |
| | | Filing Date | 6/9/01 |
| | | First Named Inventor | Czjakowski, et al. |
| | | Group Art Unit | TBD |
| | | Examiner Name | TBD |
| Sheet 2 of 5 | | Attorney Docket No. | 70638 |

| U.S. PATENT DOCUMENTS | | | | | | | | | |
|---------------------------|----------|---|------------------------------|-------------------------------|-------------------------------------|---|-------|-----------|---------------------------------|
| EXAMINE R INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD- YYYY) | CLASS | SUB CLASS | FILING DATE (if appropriate) |
| | | | PATENT, PUB.. OR APP. NO. | KIND CODE (if known) | | | | | |
| | AV | | 4,167,647 | | Salera | 9/79 | | | 5/76 |
| | AW | X | 4,173,683 | | Comizzoli | 11/79 | | | 4/78 |
| | AX | X | 4,250,347 | | Fierkens | 2/81 | | | 4/78 |
| | AY | X | 4,633,573 | | Scherer | 1/87 | | | 5/84 |
| | AZ | X | 4,769,344 | | Sakai, et al. | 9/88 | | | 1/87 |
| | BA | X | 5,139,969 | | Mori | 8/92 | | | 7/91 |
| | BB | X | 5,527,742 | | Weiler, et al. | 6/96 | | | 6/95 |
| | BC | X | 5,851,852 | | Ostop, et al. | 12/98 | | | 2/96 |
| | BD | X | 5,888,850 | | Havens, et al. | 3/99 | | | 9/97 |
| | BE | X | 5,824,568 | | Zechman | 10/98 | | | 7/96 |
| | BF | X | 5,780,163 | | Camilletti, et al. | 7/98 | | | 6/96 |
| | BG | X | 5,096,851 | | Yamazaki, et al. | 3/92 | | | 8/90 |
| | BH | X | 4,888,449 | | Crane, et al. | 12/89 | | | 1/88 |
| | BI | X | 4,835,120 | | Mallik, et al. | 5/89 | | | 6/88 |
| | BJ | X | 4,468,411 | | Sloan, et al. | 8/84 | | | 4/82 |
| | BK | X | 4,891,687 | | Mallik, et al. | 1/90 | | | 1/89 |
| | BL | X | 5,561,265 | | Livshits, et al. | 10/96 | | | 10/94 |
| | BM | X | 4,652,465 | | Koto, et al. | 3/87 | | | 5/85 |
| | BN | X | 4,979,019 | | Paquette, et al. | 12/90 | | | 5/88 |
| | BO | X | 4,663,240 | | Hajdu, et al. | 5/87 | | | 11/84 |
| | BP | X | 5,304,750 | | Schubert, et al. | 10/94 | | | 8/89 |
| | BQ | X | 5,202,536 | | Buonanno | 4/93 | | | 2/92 |

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|--|--|----------------------|--------------------|
| Form PTO-1449 (Modified) | | Application No. | 09/878,683 |
| INFORMATION DISCLOSURE CITATION IN AN APPLICATION | | Filing Date | 6/9/01 |
| | | First Named Inventor | Czjakowski, et al. |
| | | Group Art Unit | TBD |
| | | Examiner Name | TBD |
| Sheet 3 of 5 | | Attorney Docket No. | 70638 |

| U.S. PATENT DOCUMENTS | | | | | | | | | |
|---------------------------|----------|---|------------------------------|-------------------------------|-------------------------------------|---|-------|-----------|---------------------------------|
| EXAMINE R INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD- YYYY) | CLASS | SUB CLASS | FILING DATE (if appropriate) |
| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| BR | X | 4,089,575 | | | Grabbe | 5/78 | | | 9/76 |
| BS | X | 5,151,770 | | | Inoue | 9/92 | | | 11/90 |
| BT | X | 5,239,126 | | | Oshiba | 8/93 | | | 1/91 |
| BU | X | 5,250,845 | | | Runyan | 10/93 | | | 11/90 |
| BV | X | 4,967,315 | | | Schelhorn | 10/90 | | | 1/90 |
| BW | X | 5,770,304 | | | Nakamura | 6/98 | | | 7/95 |
| BX | X | 4,661,837 | | | Sono | 4/87 | | | 12/85 |
| BY | X | 4,839,716 | | | Butt | 6/89 | | | 6/87 |
| BZ | X | 4,953,002 | | | Nelson, et al. | 8/90 | | | 9/89 |
| CA | X | 5,138,430 | | | Gow, III, et al. | 8/92 | | | 6/91 |
| CB | X | 5,149,662 | | | Eichelberger | 9/92 | | | 2/92 |
| CC | X | 5,166,772 | | | Soldner, et al. | 11/92 | | | 2/91 |
| CD | X | 5,294,826 | | | Marcantonio, et al. | 3/94 | | | 4/93 |
| CE | X | 4,935,174 | | | Suzuki | 6/90 | | | 9/89 |
| CF | X | 5,047,260 | | | Durand | 9/91 | | | 3/90 |
| CG | X | 5,180,513 | | | Durand | 1/93 | | | 1/90 |
| CH | X | 5,424,251 | | | Sono, et al. | 6/95 | | | 9/93 |
| CI | X | 5,577,319 | | | Knecht | 11/96 | | | 3/95 |
| CJ | X | 5,589,129 | | | Kato, et al. | 12/96 | | | 6/95 |
| CK | X | 5,610,443 | | | Inagaki, et al. | 3/97 | | | 9/95 |
| CL | X | 4,687,622 | | | Longden | 8/87 | | | 10/85 |
| CM | X | 5,672,918 | | | Kimbrough, et al. | 9/97 | | | 8/94 |

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|--|--|--|----------------------|--------------------|
| Form PTO-1449 (Modified) | | | Application No. | 09/878,683 |
| INFORMATION DISCLOSURE CITATION IN AN APPLICATION | | | Filing Date | 6/9/01 |
| | | | First Named Inventor | Czjakowski, et al. |
| | | | Group Art Unit | TBD |
| | | | Examiner Name | TBD |
| Sheet 4 of 5 | | | Attorney Docket No. | 70638 |

| U.S. PATENT DOCUMENTS | | | | | | | | | |
|---------------------------|----------|---|------------------------------|-------------------------------|-------------------------------------|---|-------|-----------|---------------------------------|
| EXAMINE R INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD- YYYY) | CLASS | SUB CLASS | FILING DATE (if appropriate) |
| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| | CN | X | 5,384,477 | | Bulucea, et al. | 1/95 | | | 3/93 |
| | CO | X | 5,441,900 | | Bulucea, et al. | 8/95 | | | 9/94 |
| | CP | X | 5,552,338 | | Kang | 9/96 | | | 9/95 |
| | CQ | X | 5,714,102 | | Highum, et al. | 2/98 | | | 4/95 |
| | CR | X | 5,864,088 | | Sato, et al. | 1/99 | | | 1/95 |
| | CS | X | 5,880,403 | | Czajkowski, et al. | 3/99 | | | 1/97 |
| | CT | X | 5,294,826 | | Marcantonio, et al. | 3/94 | | | 4/93 |

| FOREIGN PATENT DOCUMENTS | | | | | | | | | |
|--------------------------|----------|---|--|-----------------|----------------------------|--|-------|-----------|----------------------------|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | FOREIGN PATENT DOCUMENT | | | DATE OF PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | TRANSLATION YES NO |
| | | | COUNTRY OR OFFICE (two-letter code) | DOCUMENT NO. | KIND CODE (if known) | | | | |
| | CU | X | JP | 56/103,452 | | 8/81 | | | |
| | CV | X | JP | 60/180,150 | | 9/85 | | | |
| | CW | X | JP | 61/004,249 | | 1/86 | | | |
| | CX | X | JP | 62/125,651 | | 6/87 | | | |
| | CY | X | JP | 2,237,053 | | 9/90 | | | |
| | CZ | X | JP | 4,094,560 | | 3/92 | | | |
| | DA | X | JP | 61/004,250 | | 1/86 | | | |
| | DB | X | JP | 57/095,650 | | 6/82 | | | |
| | DC | X | JP | 60/106,150 | | 6/85 | | | |

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|--|--|----------------------|--------------------|
| Form PTO-1449 (Modified) | | Application No. | 09/878,683 |
| INFORMATION DISCLOSURE CITATION IN AN APPLICATION | | Filing Date | 6/9/01 |
| | | First Named Inventor | Czjakowski, et al. |
| | | Group Art Unit | TBD |
| | | Examiner Name | TBD |
| Sheet 5 of 5 | | Attorney Docket No. | 70638 |

| FOREIGN PATENT DOCUMENTS | | | | | | | | | |
|--------------------------|----------|---|--|-----------------|----------------------------|--|-------|-----------|-------------|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | FOREIGN PATENT DOCUMENT | | | DATE OF PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | TRANSLATION |
| | | | COUNTRY OR OFFICE (two-letter code) | DOCUMENT NO. | KIND CODE (if known) | | | | |
| | DD | X | JP | 54/004,781 | | 7/80 | | | |
| | DE | X | FR | 2,584,863 | | 1/87 | | | |
| | DF | X | EP | 0,160,327 | | 11/85 | | | |
| | DG | X | JP | 60/124,834 | | 7/85 | | | |
| | DH | X | JP | 4,273,200 | | 9/92 | | | |
| | DI | X | JP | 2,278,740 | | 11/90 | | | |

| OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS | | | |
|--|-------------|---|---|
| EXAMINER DM INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| | DJ | X | "Electronics Packaging and Production", p 26-27 |
| | DK | X | "Electronic materials and Processes, Consulting and Short Courses", p 1-3 |
| | DL | X | "Electronic Materials Handbook", p 470-483 |
| | DM | X | "Electronic Packaging and Interconnection Handbook", p 6.41- 6.49 |
| | DN | X | M.P. Baze, et al., "Latch-Up Paths in Bipolar Integrated Circuits", IEEE Transactions on Nuclear Science, December 1986, Vol. NS-33 No. 6 |
| | DO | X | A. H. Johnston, et al., " The Effect of Temperature on Single-Particle Latch-Up", IEEE Transactions on Nuclear Science, December 1991, Vol. 38, No. 6 |
| | DP | X | Song, et al., "Parametric Investigation of Latch-Up Sensitivity in 1.25 μ m CMOS Technology", IEEE Transactions on Nuclear Science, December 1987, Vol. NS 34 No. 6 |

| | | | |
|-----------------------|--|--------------------|--|
| Examiner Signature | | Date Considered | |
|-----------------------|--|--------------------|--|

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

Application No.

09/878,683

**INFORMATION DISCLOSURE
CITATION IN AN APPLICATION**

Filing Date

6/9/01

First Named Inventor

Czjakowski, et al.

Group Art Unit

2831

Examiner Name

Ngo, H.

Sheet 1 of 2

Attorney Docket No.

70638

U.S. PATENT DOCUMENTS

| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | FILING DATE (if appropriate) |
|--------------------|----------|--|---------------------------|----------------------|-------------------------------|--|-------|-----------|------------------------------|
| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| | | | | | | | | | |

FOREIGN PATENT DOCUMENTS

| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | FOREIGN PATENT DOCUMENT | | | DATE OF PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | TRANSLATION | |
|--------------------|----------|--|-------------------------------------|--------------|----------------------|----------------------------------|-------|-----------|-------------|----|
| | | | COUNTRY OR OFFICE (two-letter code) | DOCUMENT NO. | KIND CODE (if known) | | | | YES | NO |
| | DQ | | JP | 56/103,452 | | 8/81 | | | | |
| | DR | | JP | 60/180,150 | | 9/85 | | | | |
| | DS | | JP | 61/004,249 | | 1/86 | | | | |
| | DT | | JP | 62/125,651 | | 6/87 | | | | |
| | DU | | JP | 2,237,053 | | 9/90 | | | | |
| | DV | | JP | 4,094,560 | | 3/92 | | | | |
| | DW | | JP | 61/004,250 | | 1/86 | | | | |
| | DX | | JP | 57/095,650 | | 6/82 | | | | |
| | DY | | JP | 60/106,150 | | 6/85 | | | | |
| | DZ | | JP | 54/004,781 | | 7/80 | | | | |
| | EA | | FR | 2,584,863 | | 1/87 | | | | |
| | EB | | EP | 0,160,327 | | 11/85 | | | | |
| | EC | | JP | 60/124,834 | | 7/85 | | | | |
| | ED | | JP | 4,273,200 | | 9/92 | | | | |
| | EF | | JP | 2,278,740 | | 11/90 | | | | |

| | | | |
|--|--|----------------------|--------------------|
| Form PTO-1449 (Modified) | | Application No. | 178,683 |
| INFORMATION DISCLOSURE CITATION IN AN APPLICATION | | Filing Date | 6/9/01 |
| | | First Named Inventor | Czjakowski, et al. |
| | | Group Art Unit | 2831 |
| | | Examiner Name | Ngo, H. |
| Sheet 2 of 2 | | Attorney Docket No. | 70638 |

| OTHER DOCUMENTS – NON PATENT LITERATURE DOCUMENTS | | | |
|---|----------|---|---|
| EXAMINER D M INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| | EG | | “Electronics Packaging and Production”, p 26-27 |
| | EH | | “Electronic materials and Processes, Consulting and Short Courses”, p 1-3 |
| | EI | | “Electronic Materials Handbook”, p 470-483 |
| | EJ | | “Electronic Pakcaging and Interconnection Handbook”, p 6.41- 6.49 |
| | EK | | M.P. Baze, et al., “Latch-Up Paths in Bipolar Integrated Circuits”, IEEE Transactions on Nuclear Science, December 1986, Vol. NS-33 No. 6 |
| | EL | | A. H. Johnston, et al., “ The Effect of Temperature on Single-Particle Latch-Up”, IEEE Transactions on Nuclear Science, December 1991, Vol. 38, No. 6 |
| | EM | | Song, et al., “Parametric Investigation of Latch-Up Sensitivity in 1.25 µm CMOS Technology”, IEEE Transactions on Nuclear Science, December 1987, Vol. NS 34 No. 6 |

| | | |
|--------------------|--|-----------------|
| Examiner Signature | | Date Considered |
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*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

EXHIBIT A

DOCKET NO. 66229

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Czjakowski, et al.
Serial No.: 09/109,954
Filed: 07/02/98
For: RADIATION SHIELDING
OF THREE DIMENSIONAL
MULTI-CHIP MODULES
Art Unit: 2831
Examiner: Ngo, H.

I hereby certify that this paper is being deposited with
the United States Postal Service as first class mail in
an envelope addressed to: Commissioner for Patents,
Washington, D.C. 20231, on this date.
18-AUGUST-2011
Date Thomas F. Lebans
Registration No. 38,221
Attorney for Applicant(s)

INFORMATION DISCLOSURE STATEMENT IN ACCORDANCE WITH 37 C.F.R. §§1.97-1.98

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This Information Disclosure Statement is being made under
37 C.F.R. §1.97(c). Thus, a check for \$240.00 is enclosed as
per 37 C.F.R. §§1.17(p).

Any additional fees that may be due in connection with
filing this Information Disclosure Statement may be charged to
Deposit Account No. 06-1135.

In accordance with the duty of disclosure imposed by 37
C.F.R. §1.56 to inform the Patent Office of all references
known by Applicant or Applicant's representative that may be
material to the examination of the subject application,
Applicant's representative hereby provides this Information
Disclosure Statement that is prepared in accordance with 37
C.F.R. §§1.97-1.98.

The material listed on PTO-1449 as items AA through AI,
inclusive, and items CT through CY, inclusive, were made of
record in U.S. patent application Serial Number 08/372,289,
filed January 1, 1995, to which this application claims

INFORMATION DISCLOSURE STATEMENT
Serial No. 09/109,954

priority and thus, copies of these items are not required as per C.F.R. §1.98(d).

Copies of the materials listed on PTO-1449 as items AJ through CS, inclusive, and items CZ through DO, inclusive, are provided as per 37 C.F.R. §1.98(a).

All twelve of the following references cited in the Form-1449 are in a foreign language. Therefore, the Applicant is supplying the following concise explanations of relevance pursuant to 37 C.F.R. § 1.98 (a).

Japanese Patent Publications No. 60-180150 appears to disclose a semiconductor device enclosed within a plastic package, and surrounded by a thin metallic plating to absorb or collect unwanted electro-magnetic interference (EMI).

Japanese Patent Publication No. 61-4249 appears to disclose a spot shielded semiconductor device which utilizes a single-layer shield film.

Japanese Patent Publication No. 4-94560 appears to disclose a semiconductor device enclosed within a plastic package and surrounded by a grounded metallic plate to absorb or reflect EMI.

Japanese Patent Publication No. 56-103452 appears to disclose a packaged semiconductor device having external leads connected to an internal semiconductor device protected from radiation by projections from a base portion.

Japanese Patent Publication No. 2-237053 appears to disclose a semiconductor device surrounded by an EMI wave absorber material in a metal package.

Japanese Patent Publication No. 62-125651 appears to disclose the use of spot shielding to protect a semiconductor device.

Japanese Patent Publication No. 60-106150 appears to disclose the use of a cap or lid to protect an integrated circuit chip from radiation. It also appears to disclose the

INFORMATION DISCLOSURE STATEMENT
Serial No. 09/109,954

use of a metal shielding sheet within a package as well as outside the package.

Japanese Patent Publication No. 54-4781 appears to disclose the use of a metallic thin film on the inside of a container for containing a semiconductor device. The thin film is used to prevent radiation from making the IC malfunction.

Japanese Patent Publication No. 60-124834 appears to disclose an inspection process to detect defective chips, bonding wire or lead frame of a rejective semiconductor device.

Japanese Patent Publication No. 2-278740 appears to disclose a way of bonding and IC chip to a lead frame with sealing frame and performing resin-sealing of the IC chip in a way to reduce the bonding time.

Japanese Patent Publication No. 4-273200 appears to disclose a shielding device that is on top of a printed wiring board.

French Patent No. 258483 appears to disclose a protective component used with complex circuits in spacecraft. The protective component appears to be successive layers of materials with high and low numbers of charges that protects against ionizing radiation.

English translations have been provided for items CZ, DA and DE.

Although these documents are made known to the Patent and Trademark Office in compliance with Applicant's duty of disclosure, such disclosure is not to be construed as an admission by Applicant or Applicant's representative that any of the references is effective as prior art against the subject application. In accordance with 37 CFR 1.97(b), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists.

INFORMATION DISCLOSURE STATEMENT
Serial No. 09/109,954

Applicant respectfully requests that the Examiner review the foregoing references and that they be made of record in the file history of the above-captioned application.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

By: 

Thomas F. Lebens

Registration No. 38,221

Dated: 18 AUGUST, 2000

Address all correspondence to:

FITCH, EVEN, TABIN & FLANNERY
135 So. LaSalle Street, Suite 900
Chicago, Illinois 60603
Telephone: 858/552-1311

| Form PTO-1449 (Modified) INFORMATION DISCLOSURE CITATION IN AN APPLICATION <small>(Use several sheets if necessary)</small> | | | | | | | | Docket Number 66229 | | Application Number 09/109,954 | | | |
|--|--|-----------------|---|---|---|---|---|---------------------------------|---------|----------------------------------|-------|-----------|-------------|
| | | | | | | | | Applicant Czjakowski, et al. | | | | | |
| | | | | | | | | | | Filing Date 07/02/98 | | | |
| | | | | | | | | | | Group Art Unit 2831 | | | |
| U.S. PATENT DOCUMENTS | | | | | | | | | | | | | |
| Examiner Initial | | DOCUMENT NUMBER | | | | | | | DATE | NAME | CLASS | SUB CLASS | FILING DATE |
| AA | | 4 | 6 | 6 | 3 | 2 | 4 | 0 | 5/1987 | Hajdu et al. | 428 | 545 | 4/1984 |
| AB | | 4 | 9 | 7 | 9 | 0 | 1 | 9 | 12/1990 | Paquette et al. | 257 | 690 | 5/1988 |
| AC | | 5 | 5 | 6 | 1 | 2 | 6 | 5 | 3/1993 | Livshits et al. | 174 | 35gc | 10/1994 |
| AD | | 4 | 6 | 5 | 2 | 4 | 6 | 5 | 3/1987 | Koto | 427 | 216 | 5/1985 |
| AE | | 4 | 5 | 0 | 6 | 1 | 0 | 8 | 3/1985 | Kersch et al. | 174 | 52 | 4/1983 |
| AF | | 4 | 8 | 3 | 3 | 3 | 3 | 4 | 5/1989 | Valy et al. | 250 | 515.1 | 4/1987 |
| AG | | 4 | 9 | 7 | 5 | 7 | 6 | 2 | 12/1990 | Stradley et al. | 257 | 660 | 6/1981 |
| AH | | 5 | 3 | 1 | 7 | 1 | 0 | 7 | 5/1994 | Osorio | 174 | 52.4 | 9/1992 |
| AI | | 5 | 4 | 0 | 6 | 1 | 1 | 7 | 4/1995 | Dlugoecki et al. | 257 | 659 | 12/1993 |
| AJ | | 4 | 0 | 9 | 1 | 4 | 0 | 7 | 5/1978 | Williams et al. | 357 | 54 | 11/1976 |
| AK | | 5 | 8 | 2 | 5 | 0 | 4 | 2 | 10/1998 | Strobel et al. | 250 | 515.1 | 1/1995 |
| AL | | 5 | 8 | 8 | 9 | 3 | 1 | 6 | 3/1999 | Strobel et al. | 257 | 659 | 2/1996 |
| AM | | 5 | 8 | 8 | 0 | 4 | 0 | 3 | 3/1999 | Czajkowski et al. | 174 | 35R | 1/1997 |
| AN | | 3 | 8 | 2 | 8 | 4 | 2 | 5 | 8/1974 | Manus | 29 | 590 | 10/1970 |
| AO | | 4 | 8 | 3 | 7 | 4 | 4 | 8 | 6/1989 | Sainte Luce Banchelin et al. | 250 | 519.1 | 4/1987 |
| AP | | 3 | 7 | 7 | 1 | 0 | 2 | 5 | 11/1973 | Berner | 317 | 234R | 10/1969 |
| AQ | | 5 | 2 | 0 | 6 | 7 | 9 | 4 | 4/1993 | Long | 257 | 675 | 12/1991 |
| AR | | 5 | 2 | 6 | 8 | 3 | 3 | 1 | 12/1993 | Abbott | 437 | 225 | 1/1992 |
| AS | | 3 | 7 | 0 | 6 | 8 | 4 | 0 | 12/1972 | Moyle et al. | 174 | 52PE | 5/1971 |
| AT | | 3 | 9 | 1 | 4 | 8 | 5 | 8 | 10/1975 | Sonoda et al. | 29 | 588 | 8/1974 |
| AU | | 4 | 1 | 0 | 0 | 6 | 7 | 5 | 7/1978 | Landsittel | 29 | 627 | 11/1976 |
| AV | | 4 | 1 | 7 | 3 | 6 | 8 | 3 | 11/1979 | Comizzoli | 428 | 447 | 4/1978 |
| AW | | 4 | 2 | 5 | 0 | 3 | 4 | 7 | 2/1981 | Fierkens | 174 | 52 | 4/1978 |
| AX | | 4 | 6 | 3 | 3 | 5 | 7 | 3 | 1/1987 | Scherer | 29 | 589 | 5/1984 |
| AY | | 4 | 7 | 6 | 9 | 3 | 4 | 4 | 9/1988 | Sakai et al. | 437 | 216 | 1/1987 |
| AZ | | 5 | 1 | 3 | 9 | 9 | 6 | 9 | 8/1992 | Mori | 437 | 183 | 7/1991 |
| BA | | 5 | 5 | 2 | 7 | 7 | 4 | 2 | 6/1996 | Weiler et al. | 437 | 211 | 6/1995 |

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|--|----|---|---|---|---|---|---|---|---------|-----------------------------|-----|-------|---------|
| | BB | 5 | 8 | 5 | 1 | 8 | 5 | 2 | 12/1998 | Ostop et al. | 438 | 106 | 2/1996 |
| | BC | 5 | 8 | 8 | 8 | 8 | 5 | 0 | 3/1999 | Havens et al. | 438 | 127 | 9/1997 |
| | BD | 5 | 8 | 2 | 4 | 5 | 6 | 8 | 10/1998 | Zechman | 438 | 112 | 7/1996 |
| | BE | 5 | 7 | 8 | 0 | 1 | 6 | 3 | 7/1998 | Camilletti et al. | 428 | 446 | 6/1996 |
| | BF | 5 | 0 | 9 | 6 | 8 | 5 | 1 | 3/1992 | Yamazaki et al. | 437 | 205 | 8/1990 |
| | BG | 4 | 8 | 8 | 8 | 4 | 4 | 9 | 12/1989 | Crane et al. | 174 | 52.4 | 1/1988 |
| | BH | 4 | 8 | 3 | 5 | 1 | 2 | 0 | 5/1989 | Mallik et al. | 437 | 209 | 6/1988 |
| | BI | 4 | 4 | 6 | 8 | 4 | 1 | 1 | 8/1984 | Sloan et al. | 427 | 8 | 4/1982 |
| | BJ | 4 | 8 | 9 | 1 | 6 | 8 | 7 | 1/1990 | Mallik et al. | 357 | 70 | 1/1989 |
| | BK | 5 | 5 | 6 | 1 | 2 | 6 | 5 | 10/1996 | Livshits et al. | 174 | 35GC | 10/1996 |
| | BL | 4 | 6 | 5 | 2 | 4 | 6 | 5 | 3/1987 | Koto et al. | 427 | 216 | 5/1985 |
| | BM | 4 | 9 | 7 | 9 | 0 | 1 | 9 | 12/1990 | Paquette et al. | 357 | 80 | 5/1988 |
| | BN | 4 | 6 | 6 | 3 | 2 | 4 | 0 | 5/1987 | Hajdu et al. | 428 | 545 | 11/1984 |
| | BO | 5 | 3 | 0 | 4 | 7 | 5 | 0 | 10/1994 | Schubert et al. | 181 | 294 | 8/1989 |
| | BP | 5 | 2 | 0 | 2 | 5 | 3 | 6 | 4/1993 | Buonanno | 174 | 35GC | 2/1992 |
| | BQ | 4 | 0 | 8 | 9 | 5 | 7 | 5 | 5/1978 | Grabbe | 339 | 17 | 9/1976 |
| | BR | 5 | 1 | 5 | 1 | 7 | 7 | 0 | 9/1992 | Inoue | 357 | 53 | 11/1990 |
| | BS | 5 | 2 | 3 | 9 | 1 | 2 | 6 | 8/1993 | Oshima | 174 | 35 | 1/1991 |
| | BT | 5 | 2 | 5 | 0 | 8 | 4 | 5 | 10/1993 | Runyan | 257 | 729 | 11/1990 |
| | BU | 4 | 9 | 6 | 7 | 3 | 1 | 5 | 10/1990 | Schelhorn | 361 | 424 | 1/1990 |
| | BV | 5 | 7 | 7 | 0 | 3 | 0 | 4 | 6/1998 | Nakamura | 428 | 328 | 7/1995 |
| | BW | 4 | 6 | 6 | 1 | 8 | 3 | 7 | 4/1987 | Sono | 357 | 84 | 12/1985 |
| | BX | 4 | 8 | 3 | 9 | 7 | 1 | 6 | 6/1989 | Butt | 357 | 74 | 6/1987 |
| | BY | 4 | 9 | 5 | 3 | 0 | 0 | 2 | 8/1990 | Nelson et al. | 357 | 74 | 9/1989 |
| | BZ | 5 | 1 | 3 | 8 | 4 | 3 | 0 | 8/1992 | Gow, 3 rd et al. | 357 | 70 | 6/1991 |
| | CA | 5 | 1 | 4 | 9 | 6 | 6 | 2 | 9/1992 | Eichelberger | 437 | 8 | 2/1992 |
| | CB | 5 | 1 | 6 | 6 | 7 | 7 | 2 | 11/1992 | Soldner et al. | 257 | 659 | 2/1991 |
| | CC | 5 | 2 | 9 | 4 | 8 | 2 | 6 | 3/1994 | Marcantonio, et al. | 257 | 659 | 4/1993 |
| | CD | 4 | 9 | 3 | 5 | 1 | 7 | 4 | 6/1990 | Suzuki | 264 | 24 | 9/1989 |
| | CE | 5 | 0 | 4 | 7 | 2 | 6 | 0 | 9/1991 | Durand | 427 | 54.1 | 3/1990 |
| | CF | 5 | 1 | 8 | 0 | 5 | 1 | 3 | 1/1993 | Durand | 252 | 62.55 | 1/1990 |
| | CG | 5 | 4 | 2 | 4 | 2 | 5 | 1 | 6/1995 | Sono et al. | 437 | 214 | 9/1993 |
| | CH | 5 | 5 | 7 | 7 | 3 | 1 | 9 | 11/1996 | Knecht | 29 | 827 | 3/1995 |
| | CI | 5 | 5 | 8 | 9 | 1 | 2 | 9 | 12/1996 | Kat et al. | 264 | 437 | 6/1995 |
| | CI | 5 | 6 | 1 | 0 | 4 | 4 | 3 | 3/1997 | Inagaki et al. | 257 | 788 | 9/1995 |
| | CK | 4 | 6 | 8 | 7 | 6 | 2 | 2 | 8/1987 | Longden | 376 | 254 | 10/1985 |

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|--|----|---|---|---|---|---|---|---|--------|--------------------|-----|-----|--------|
| | CL | 5 | 6 | 7 | 2 | 9 | 1 | 8 | 9/1997 | Kimbrough et al. | 307 | 126 | 8/1994 |
| | CM | 5 | 3 | 8 | 4 | 4 | 7 | 7 | 1/1995 | Bulucea et al. | 257 | 372 | 3/1993 |
| | CN | 5 | 4 | 4 | 1 | 9 | 0 | 0 | 8/1995 | Bulucea et al. | 437 | 24 | 9/1994 |
| | CO | 5 | 5 | 5 | 2 | 3 | 3 | 8 | 9/1996 | Kang | 437 | 170 | 9/1995 |
| | CP | 5 | 7 | 1 | 4 | 1 | 0 | 2 | 2/1998 | Highum et al. | 264 | 105 | 4/1995 |
| | CQ | 5 | 8 | 6 | 4 | 0 | 8 | 8 | 1/1999 | Sato et al. | 174 | 35 | 1/1995 |
| | CR | 5 | 8 | 8 | 0 | 4 | 0 | 3 | 3/1999 | Czajkowski et al. | 174 | 35 | 1/1997 |
| | CS | 5 | 2 | 9 | 4 | 8 | 2 | 6 | 3/1994 | Marcantonio et al. | 257 | 659 | 4/1993 |

FOREIGN PATENT DOCUMENTS

| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) | | |
|--|----|--|
| | DI | "Electronics Packaging and Production", p 26-27 |
| | DJ | "Electronic materials and Processes, Consulting and Short Courses", p 1-3 |
| | DK | "Electronic Materials Handbook", p 470-483 |
| | DL | "Electronic Packaging and Interconnection Handbook", p6.41-6.49 |
| | DM | M.P. Baze et al., "Latch-Up Paths in Bipolar Integrated Circuits", IEEE Transactions on Nuclear Science, December 1986, Vol. NS-33. No. 6 |
| | DN | A. H. Johnston, et al., "The Effect of Temperature on Single-Particle Latch-Up", IEEE Transactions on Nuclear Science, December 1991, Vol. 38, No. 6 |
| | DO | SONG et al., "Parametric Investigation of Latch-Up Sensitivity in 1.25 μ m CMOS Technology", IEEE Transactions on Nuclear Science, December 1987, Vol. NS-34 No. 6 |
| EXAMINER: | | DATE CONSIDERED |
| EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant. | | |

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: David R. Strobel,)
et al.)
Serial No: 08/372,289)
Filed: January 13, 1995)
Title: RADIATION SHIELDING OF)
INTEGRATED CIRCUITS AND)
MULTI-CHIP MODULES IN)
CERAMIC AND METAL PACKAGES)
Art Unit: 2503
Atty's
Docket: 551103

INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 C.F.R. §§1.56 AND 1.97-98

Honorable Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Dear Sir:

The citations listed on the enclosed PTO-1449 form are submitted under 37 C.F.R. §§1.97 and 1.98, and in compliance with the duty of disclosure as defined in 37 C.F.R. §1.56. The Examiner is requested to make these citations officially of

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first-class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on:

Date: 4-12-95

Signed: Donald L. Klenk

record in the present patent application.

The Japanese Patent Publications cited on the enclosed Form - 1449 were made of record in the parent application Serial No. 08/221,506. Accordingly, copies of these references have not been submitted with this statement pursuant to 37 C.F.R. § 1.98(d).

All six of the references cited in the Form-1449 are in the Japanese language. Therefore, the Applicant is supplying the following concise explanations of relevance pursuant to 37 C.F.R. § 1.98(a)(3).

Japanese Patent Publications No. 60-180150 appears to disclose a semiconductor device enclosed within a plastic package, and surrounded by a thin metallic plating to absorb or collect unwanted electro-magnetic interference (EMI). The reference appears to concentrate on preventing malfunctions due to EMI, and does not appear to discuss spacecraft environment hazards, including high energy electron, proton and cosmic ray damage. The Applicant does not currently possess an English translation of this document.

Japanese Patent Publication No. 61-4249 appears to disclose a spot shielded semiconductor device which utilizes a single-layer shield film. The reference appears to concentrate on the use of a shield composed of a Cu-W alloy and does not appear to discuss a shielded semiconductor device which provides approximately 4pi protection for the semiconductor device. The

Applicant does not currently possess an English translation of this document.

Japanese Patent Publication No. 4-94560 appears to disclose a semiconductor device enclosed within a plastic package and surrounded by a grounded metallic plate to absorb or reflect EMI. The reference appears to concentrate on preventing malfunctions due to EMI, and does not appear to discuss spacecraft environment hazards, including high energy electron, proton and cosmic ray damage. The Applicant does not currently posses an English translation of this document.

Japanese Patent Publication No. 56-103452 appears to disclose a packaged semiconductor device having external leads connected to an internal semiconductor device protected from radiation by projections from a base portion. The reference appears to concentrate on the shielding projections to protect the semiconductor device from radiation which may penetrate a glass feed-through, and does not appear to discuss the increase in weight created by additional protective material. Thus, the reference does not appear to be adequate for space applications. The Applicant does not currently possess an English translation of this document.

Japanese Patent Publication No. 2-237053 appears to disclose a semiconductor device surrounded by an EMI wave absorber material in a metal package. The reference appears to concentrate on disposing the semiconductor device and the wave

absorber material within a recess in a dielectric material to reduce the amount of EMI radiation which strikes the semiconductor device. The reference does not appear to discuss protecting the semiconductor device from the hazards encountered in spacecraft environment. The Applicant does not currently possess an English translation of this document.

Japanese Patent Publication No. 62-125651 appears to disclose the use of spot shielding to protect a semiconductor device. The reference appears to concentrate on attaching a double-layered shield film to a sealing cover on an upper surface of the semiconductor package, and attaching another double-layered shield film to a lower surface of the package. The reference does not appear to discuss the use of a single-layer shield to reduce the weight of the semiconductor device, and to reduce the likelihood of the shield becoming dislodged from the semiconductor device during periods of high gravitational forces being applied to the device. The Applicant does not currently possess an English translation of this document.

The remaining reference cited on the enclosed Form - 1449, U.S. Patent 4,833,334 was not made of record in the parent application, Serial No. 08/221,506. Accordingly, a copy of this reference is being submitted with this Statement.

This Information Disclosure Statement is not to be construed as a representation that any one of the listed citations establishes, by itself or in combination with other information,

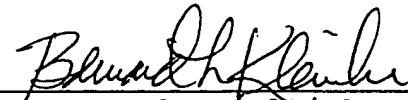
a prima facie case of unpatentability of any claim in the above-identified patent application. Additionally, this Information Disclosure Statement is not to be construed as a representation that a further search of the art has been made by the Applicant, or that additional information unknown to the Applicant and relevant to the examination of this patent application does not exist.

**AUTHORIZATION TO PAY AND PETITION
FOR THE ACCEPTANCE OF ANY NECESSARY FEES**

If any charges or fees must be paid in connection with the foregoing communication (including but not limited to the payment of an extension fee or issue fees), or if any overpayment is to be refunded in connection with the above-identified application, any such charges or fee, or any such overpayment may be respectively paid out of, or into, the Deposit Account No. 11-1240 of Bernard L. Kleinke. If any such payment also requires a Petition or Extension Request, please construe this authorization to pay as the necessary Petition or request which is required to accompany the payment.

Dated: April 12, 1995

Respectfully submitted,
LAFF, WHITESEL, CONTE & SARET

By 
Bernard L. Kleinke
Attorney for Applicant
Registration No. 22,123

LAFF, WHITESEL, CONTE & SARET
Suite 1580
101 West Broadway
San Diego, California 92101

Telephone: (619) 232-6060

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|--|----|--|---------|---------------|-----------------|------------------|------------------|----------|----------------------------|
| FORM PTO-1449 (REV. 7-80) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | | | ATTY. DOCKET NO. | SERIAL NO. | | |
| LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary) | | | | | | 551103 | 08/372,289 | | |
| | | | | | | APPLICANT | David J. Strobel | | |
| | | | | | | FILING DATE | GROUP | | |
| | | | | Jan. 13, 1995 | 2503 | | | | |
| U.S. PATENT DOCUMENTS | | | | | | | | | |
| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | | | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
| | AA | 4 8 3 3 3 3 4 | 5/23/89 | Valy, et al. | | | | | |
| | AB | | | | | | | | |
| | AC | | | | | | | | |
| | AD | | | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | | | |
| | | DOCUMENT NUMBER | DATE | COUNTRY | | | CLASS | SUBCLASS | TRANSLATION |
| | AL | 6 0 1 3 0 1 5 0 | 9/85 | Japan | | | 257 | 660 | YES |
| | AM | 6 1 0 0 4 2 4 9 | 1/86 | Japan | | | 257 | 659 | NO |
| | AN | 0 4 0 9 4 5 6 0 | 3/92 | Japan | | | 257 | 660 | |
| | AO | 5 6 1 0 3 4 5 2 | 8/81 | Japan | | | 257 | 660 | |
| | AP | 0 2 2 3 7 0 5 3 | 9/90 | Japan | | | 257 | 659 | |
| OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | | | | |
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| | AS | | | | | | | | |
| | AT | | | | | | | | |
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| <p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p> | | | | | | | | | |

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on

4-12-95

Bernard L. Klein

LAFF, WHITESEL, CONTE & SARET
Intellectual Property Law
101 West Broadway, Suite 1580
San Diego, California 92101

Phone: (619) 232-6060

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|---|----|--------------------|------|--------------------------|-----------------|----------|----------------------------|----|
| U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | | | ATTY. DOCKET NO. | SERIAL NO. | | | |
| | | | | 551103 | 08/372,289 | | | |
| LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary) | | | | APPLICANT | | | | |
| | | | | David J. Strobel, et al. | | | | |
| | | | | FILING DATE | GROUP | | | |
| | | | | Jan. 13, 1995 | 2503 | | | |
| U.S. PATENT DOCUMENTS | | | | | | | | |
| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE | |
| | AA | | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | | |
| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
| | | | | | | | YES | NO |
| | AL | 6 2 1 2 5 6 5 1 | 6/87 | Japan | 257 | 660 | | |
| | AM | | | | | | | |
| | AN | | | | | | | |
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| OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | | | |
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| EXAMINER | | | | | DATE CONSIDERED | | | |
| *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | | | | | | | | |

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Notice of References Cited

Application/Control No.
09/878,683

Applicant(s)/Patent Under Reexam
Czjakowski et al

Examiner
Hung V. Ngo

Art Unit
2831

Page 1 of 1

U.S. PATENT DOCUMENTS

| | Document Number Country Code-Number-Kind Code | Date MM-YYYY ¹ | Name | Classification ² | |
|---|--|------------------------------|-----------|-----------------------------|-----|
| A | 4,639,826 | 1/1987 | Val et al | 361 | 272 |
| B | | | | | |
| C | | | | | |
| D | | | | | |
| E | | | | | |
| F | | | | | |
| G | | | | | |
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FOREIGN PATENT DOCUMENTS

| | Document Number Country Code-Number-Kind Code | Date MM-YYYY ¹ | Country | Name | Classification ² | |
|---|--|------------------------------|---------|------|-----------------------------|--|
| N | | | | | | |
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NON-PATENT DOCUMENTS

| | |
|---|--|
| | Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages |
| U | |
| V | |
| W | |
| X | |

¹ A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a).

¹ Dates in MM-YYYY format are publication dates.

² Classifications may be U.S. or foreign.

| Notice of References Cited | | | Application No. 08/788,134 | Applicant(s) Czajkowski et al | | |
|-----------------------------------|--------------|---|--------------------------------------|---|-------------|----------|
| | | | Examiner Hung V. Ngo | Group Art Unit 2109 | Page 1 of 1 | |
| U.S. PATENT DOCUMENTS | | | | | | |
| | DOCUMENT NO. | DATE | NAME | | CLASS | SUBCLASS |
| A | 5,635,754 | 04-01-94 | Strobel et al | | 257 | 659 |
| B | 4,089,575 | 05-16-78 | Grabbe | | 439 | 71 |
| C | 4,506,108 | 03-19-85 | Kersch et al | | 174 | 52.4 |
| D | | | | | | |
| E | | | | | | |
| F | | | | | | |
| G | | | | | | |
| H | | | | | | |
| I | | | | | | |
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| L | | | | | | |
| M | | | | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | |
| | DOCUMENT NO. | DATE | COUNTRY | NAME | CLASS | SUBCLASS |
| N | 04-273200 | 07 92 | JP | MURAKI | — | — |
| O | | | | | | |
| P | | | | | | |
| Q | | | | | | |
| R | | | | | | |
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| NON-PATENT DOCUMENTS | | | | | | |
| | | DOCUMENT (Including Author, Title, Source, and Pertinent Pages) | | | | DATE |
| U | | | | | | |
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| W | | | | | | |
| X | | | | | | |

| Notice of References Cited | | | Application No. | Applicant(s) | | |
|-----------------------------------|---|----------|------------------|------------------|-------------|----------|
| | | | 08/788,134 | Czajkowski et al | | |
| | | | Examiner | Group Art Unit | | |
| | | | Hung V Ngo | 2109 | Page 1 of 1 | |
| U.S. PATENT DOCUMENTS | | | | | | |
| | DOCUMENT NO. | DATE | NAME | | CLASS | SUBCLASS |
| A | 5,239,126 | 08-24-93 | Oshiba | | 174 | 35r |
| B | 5,406,117 | 04-11-95 | Dlugokecki et al | | 257 | 659 |
| C | 5,250,845 | 10-15-93 | Runyan | | 257 | 729 |
| D | 4,967,315 | 10-30-90 | Schelhorn | | 361 | 424 |
| E | | | | | | |
| F | | | | | | |
| G | | | | | | |
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| U | | | | | | |
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| Notice of References Cited | | | Application No. 09/109,954 | Applicant(s) Czajkowski et al | | |
|-----------------------------------|---|----------|-------------------------------|----------------------------------|-------------|----------|
| | | | Examiner Hung V Ngo | Group Art Unit 2831 | Page 1 of 1 | |
| U.S. PATENT DOCUMENTS | | | | | | |
| | DOCUMENT NO. | DATE | NAME | | CLASS | SUBCLASS |
| A | 5,239,126 | 08-24-93 | Oshiba | | 174 | 35r |
| B | 5,406,117 | 04-11-95 | Dlugokecki et al | | 257 | 659 |
| C | 5,250,845 | 10-15-93 | Runyan | | 257 | 729 |
| D | 4,967,315 | 10-30-90 | Schelhorn | | 361 | 818 |
| E | | | | | | |
| F | | | | | | |
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| | DOCUMENT (Including Author, Title, Source, and Pertinent Pages) | | | | | DATE |
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Notice of References Cited

| | |
|-------------------------------|----------------------------------|
| Application No. 09/109,954 | Applicant(s) Czajkowski et al |
| Examiner Hung V Ngo | Group Art Unit 2831 |

Page 1 of 1

U.S. PATENT DOCUMENTS

| | DOCUMENT NO. | DATE | NAME | CLASS | SUBCLASS |
|---|--------------|----------|-------|-------|----------|
| A | 5,151,770 | 09-29-92 | Inoue | 257 | 659 |
| B | | | | | |
| C | | | | | |
| D | | | | | |
| E | | | | | |
| F | | | | | |
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FOREIGN PATENT DOCUMENTS

| | DOCUMENT NO. | DATE | COUNTRY | NAME | CLASS | SUBCLASS |
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NON-PATENT DOCUMENTS

| | DOCUMENT (Including Author, Title, Source, and Pertinent Pages) | DATE |
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Notice of References Cited

| | |
|-------------------------------|----------------------------------|
| Application No. 09/109,954 | Applicant(s) Czajkowski et al |
| Examiner Hung V Ngo | Group Art Unit 2831 |

Page 1 of 1

U.S. PATENT DOCUMENTS

| | DOCUMENT NO. | DATE | NAME | CLASS | SUBCLASS |
|---|--------------|--------|--------|-------|----------|
| A | 4,167,647 | 9/1979 | Salera | 174 | 52.4 |
| B | | | | | |
| C | | | | | |
| D | | | | | |
| E | | | | | |
| F | | | | | |
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FOREIGN PATENT DOCUMENTS

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NON-PATENT DOCUMENTS

| | DOCUMENT (Including Author, Title, Source, and Pertinent Pages) | DATE |
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